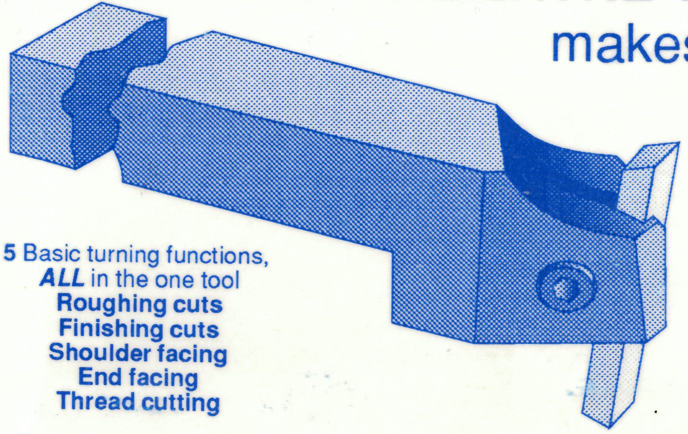
along this line

The DIAMOND Tool Holder

A *TANGENTIAL* LATHE TOOL HOLDER that makes turning a *breeze...*



5 Basic turning functions,
ALL in the one tool
Roughing cuts
Finishing cuts
Shoulder facing
End facing
Thread cutting

Designed and Manufactured by:
D & P Burke Toolmakers
27 Woodstock Rd, Mt. Waverley, Victoria 3149
AUSTRALIA
Phone: (03) 9807 6316 Fax: (03) 9807 9620
We accept Mastercard and Visa

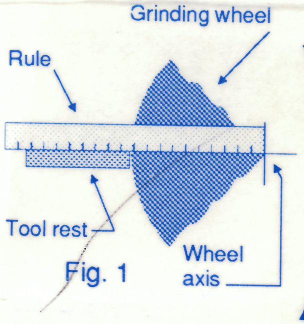


Fig. 1

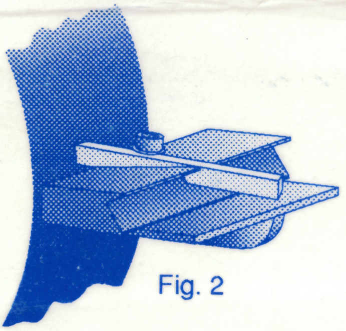


Fig. 2

TOOL SHARPENING: Before commencing, it is suggested that if the bench grinder has an adjustable tool rest then set this in line with the wheel axis, so that the angle of the tool rest to the wheel will be constant. (fig 1). Clamp the tool bit into the grinding fixture and sharpen the end face. (fig 2). Clamp the tool bit into the **DIAMOND** tool holder, at the same time setting the cutting point on centre. All the cutting angles for general purpose turning are built in. Point Radius this operation is only necessary for a new tool bit, a few minutes stoning will provide a Point Radius along the entire front edge.

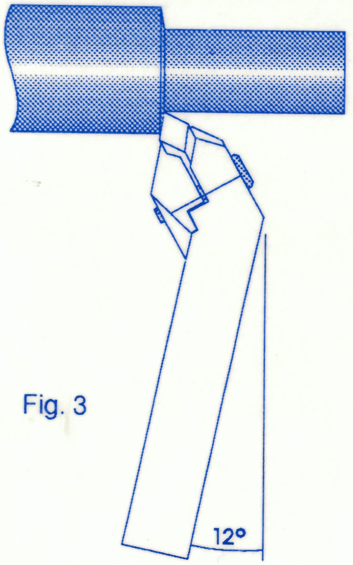


Fig. 3

SETTING

Roughing out

An exact setting is not critical for the roughing out process. However the 12° shown in fig.3 will produce satisfactory results.

Finish cuts and shoulder facing.

This can be achieved quite accurately in a variety of ways. One is to set the tool post at 12° with a protractor then scribe or mark its position for future setting. Another method is to use the diameter of a workpiece as a guide leaving a small gap (refer to the inset fig.4). Practice will show this is not difficult to achieve.

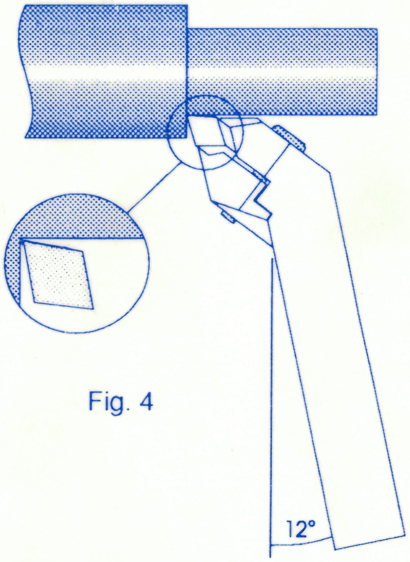


Fig. 4

THREAD GRINDING

1. Grind toolbit as per Fig.2.
2. Position the toolbit in the grinding jig Vee as shown below, place the point facing up.
3. Plunge cut along the toolbit for approx ¼" - Rough out only.
4. Jack up the jig with the socket screw to the **55°** or **60°** required.
5. Check with a thread gauge along the top edge of the toolbit.
6. Finish grinding until the point is sharp.
7. Re-sharpen the top face as per Fig.2.